
Identification of stem cell surface markers as potential therapeutic targets for advanced prostate cancer

Grant Award Details

Identification of stem cell surface markers as potential therapeutic targets for advanced prostate cancer

Grant Type: Inception - Discovery Stage Research Projects

Grant Number: DISC1-08842

Project Objective: To identify human prostate stem cell-associated surface markers that serve as potential targets for treating advanced prostate cancer.

Investigator:

Name:	Owen Witte
Institution:	University of California, Los Angeles
Type:	PI

Disease Focus: Cancer, Prostate Cancer, Solid Tumors

Human Stem Cell Use: Adult Stem Cell

Award Value: \$209,160

Status: Closed

Progress Reports

Reporting Period: Year 1

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Grant Application Details

Application Title: Identification of stem cell surface markers as potential therapeutic targets for advanced prostate cancer

Public Abstract:**Research Objective**

The goal of this proposal is to identify proteins found on the surface of both human prostate stem cells and cancer cells that could be used as potential targets for treating advanced prostate cancer.

Impact

There is no cure for advanced prostate cancer. This combined with the success of treating other cancers by targeting features unique to stem cells highlight the potential impact of our proposal.

Major Proposed Activities

- Characterize human prostate stem cell subpopulations found in normal tissue by their molecular signatures and functional traits
- Identify unique markers found on the surface of prostate stem cells that are also overexpressed in advanced prostate cancers
- Develop antibodies against prostate stem cell associated surface markers and test their ability to target advanced prostate cancer

Statement of Benefit to California:

Prostate cancer accounts for approximately 3,500 deaths each year in California. The lack of effective treatments for advanced prostate cancer and the appearance of resistance mechanisms to current drugs underscore the need to develop new therapeutic strategies. Our approach of targeting normal stem cell traits that are also found in advanced prostate cancer could potentially revolutionize how we treat men living with this debilitating disease.

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